

Serial No.: 10/624,996  
Examiner: T.L. Maust  
Art Unit: 3751

STATEMENT OF THE CLAIMS

1. (currently amended) A refillable and repressurizable container for containing and dispensing a dispensable material, comprising:
  - a) a container having an opening;
  - b) a fill valve coupled in said container, said fill valve including an upper split portion defining two resilient relatively flat bills that are in contact to completely seal said fill valve in a natural state, a section expanding away from said bills and terminating in a barb, a lower annular flared flange extending outside said container, and an annular groove is defined between said barb and said flange, said fill valve having an interior space;
  - c) a cap removably coupled to said opening to retain the dispensing material in said container except when an outlet valve is actuated; and
  - d) an actuatable outlet valve coupled to said cap, wherein when said container contains the dispensable material and is pressurized, actuation of said outlet valve releases a dispensed form of the dispensable material from said outlet valve.

2. (original) A container according to claim 1, wherein:

    said interior space has a first portion, a reduced diameter middle neck portion, and a flared third portion which provides an opening into said interior space.

3. (currently amended) A refillable and repressurizable container according to claim 1, wherein for containing and dispensing a dispensable material, comprising:

Serial No.: 10/624,996  
Examiner: T.L. Maust  
Art Unit: 3751

a) a container having an opening and said container includes a surface having a hole, and an edge about said hole is bent inward toward an interior of said container to provide a rounded contour;

b) a fill valve coupled in said container, said fill valve including an upper split portion defining two resilient relatively flat bills that are in contact, a section expanding away from said bills and terminating in a barb, a lower annular flared flange, and an annular groove is defined between said barb and said flange, wherein said edge of said container lies within said annular groove of said fill valve, between said barb and said flange, said fill valve having an interior space;

c) a cap removably coupled to said opening; and

d) an actuatable outlet valve coupled to said cap, wherein when said container contains the dispensable material and is pressurized, actuation of said outlet valve releases a dispensed form of the dispensable material from said outlet valve.

4. (currently amended) A container according to claim 1, further comprising:

e) at least one separating element,

wherein said container includes a surface defining a hole having an edge thereabout, and said fill valve extends through said hole and said at least one separating element separates said fill valve from said edge.

5. (currently amended) A refillable and repressurizable container according to claim 4, wherein for containing and dispensing a dispensable material, comprising:

a) a container having an opening;

Serial No.: 10/624,996  
Examiner: T.L. Maust  
Art Unit: 3751

b) a fill valve coupled in said container, said fill valve including an upper split portion defining two resilient relatively flat bills that are in contact, a section expanding away from said bills and terminating in a barb, a lower annular flared flange, and an annular groove is defined between said barb and said flange, said fill valve having an interior space;

c) a cap removably coupled to said opening;

d) an actuatable outlet valve coupled to said cap, wherein when said container contains the dispensable material and is pressurized, actuation of said outlet valve releases a dispensed form of the dispensable material from said outlet valve; and

e) at least one separating element,

wherein said container includes a surface defining a hole having an edge thereabout, and said fill valve extends through said hole and said at least one separating element separates said fill valve from said edge and said barb of said fill valve lies above a first portion of said at least one separating element, and said flange of said fill valve lies below a second portion of said at least one separating element.

6. (original) A container according to claim 4, wherein:

    said at least one separating element includes a material which is softer than said edge of said container.

7. (original) A container according to claim 4, wherein:

    said at least one separating element includes an interior surface which is less angular than said edge about said hole in said surface of said container.

Serial No.: 10/624,996  
Examiner: T.L. Maust  
Art Unit: 3751

8. (currently amended) A refillable and repressurizable container according to claim 1, for containing and dispensing a dispensable material, further comprising:

a) a container having an opening;

b) a fill valve coupled in said container, said fill valve including an upper split portion defining two resilient relatively flat bills that are in contact, a section expanding away from said bills and terminating in a barb, a lower annular flared flange, and an annular groove is defined between said barb and said flange, said fill valve having an interior space;

c) a cap removably coupled to said opening;

d) an actuatable outlet valve coupled to said cap, wherein when said container contains the dispensable material and is pressurized, actuation of said outlet valve releases a dispensed form of the dispensable material from said outlet valve;

e) an annular catch; and

f) a resilient strain relief member,

wherein said container includes a surface defining a hole having an edge thereabout, and said annular catch is positioned between said fill valve and said edge and said strain relief member is positioned between said fill valve and said catch, with said strain relief member being in contact with said annular catch.

9. (original) A container according to claim 8, further comprising:

g) an o-ring forming a fluid tight seal between the catch and said surface of said container.

Serial No.: 10/624,996  
Examiner: T.L. Maust  
Art Unit: 3751

10. (original) A container according to claim 8, wherein:

    said strain relief member is locked relative to said annular catch.

11. (original) A container according to claim 8, wherein:

    said strain relief member defines an inner smooth surface which lies within said annular groove of said fill valve.

12. (canceled)

13. (original) A container according to claim 1, wherein:

    said section of said fill valve expanding away from said bills is frustoconical in shape.

14. (original) A container according to claim 1, wherein:

    said container is adapted to contain a liquid and said outlet valve is spray valve adapted to dispense the liquid in an aerosolized form.

15. (original) A refillable and repressurizable container for containing and dispensing a dispensable material, comprising:

    a) a container having an open end and a surface provided with a hole spaced apart from said open end and having an edge thereabout;

Serial No.: 10/624,996  
Examiner: T.L. Maust  
Art Unit: 3751

- b) a resilient fill valve extending through said hole, said fill valve defining an interior space, said fill valve naturally in a completely closed configuration and being movable to an open configuration upon application of a pressurizing gas into said interior space;
- c) at least one separating element separating said fill valve from physical contact with said edge;
- d) a cap removably coupled to said open end; and
- e) an actuatable outlet valve coupled to said cap, wherein when said container contains the dispensable material and is pressurized, actuation of said outlet valve releases a dispensed form of the material from said outlet valve.

16. (original) A container according to claim 15, wherein:

    said fill valve includes a barb and a flange and defines an annular groove between said barb and said flange, wherein said barb lies above a first portion of said at least one separating element, and said flange of said fill valve lies below a second portion of said at least one separating element.

17. (original) A container according to claim 15, wherein:

    said at least one separating element includes a material which is softer than said edge of said container.

18. (original) A container according to claim 15, wherein:

    said at least one separating element includes an interior surface which is less angular than said edge about said hole in said container.

Serial No.: 10/624,996  
Examiner: T.L. Maust  
Art Unit: 3751

19. (original) A container according to claim 15, wherein:

    said container is adapted to contain a liquid and said outlet valve is spray valve adapted to dispense the liquid in an aerosolized form.

20. (original) A pressurizing system for a pressurizable container, comprising:

    a) a pressurization station including a compressor and a needle in communication with said compressor, said needle having a head portion and a relatively reduced diameter neck portion; and

    b) a refillable and repressurizable container for containing a dispensing material and dispensing said dispensing material in a dispensed form, said container including a resilient fill valve defining an interior space having a head portion, a reduced diameter neck portion, and a flared opening portion, said fill valve being naturally in a closed configuration and being moved to an open configuration upon application of a pressurizing gas into said interior space,

    wherein when said container is seated over said needle, said needle extends within said valve such that said head portion of said needle resides within said head portion of said fill valve, said neck portion of said needle resides within said neck portion of said fill valve,

    wherein upon actuation of said compressor, a pressurizing gas is forced through said needle, opens said fill valve, and pressurizes said container, said pressurization of said container causing said valve to grip said needle to retain said container on said needle.

Serial No.: 10/624,996  
Examiner: T.L. Maust  
Art Unit: 3751

21. (original) A system according to claim 20, wherein:

    said needle further includes a base portion which is relatively larger in diameter than said neck portion.

22. (original) A system according to claim 20, wherein:

    said head portion has a tapered end.

23. (original) A system according to claim 20, wherein:

    said head portion has a frustoconical tip.

24. (original) A system according to claim 20, wherein:

    said station includes an upstanding collar surrounding said needle.

25. (original) A system according to claim 20, wherein:

    said dispensable material is a fluid, and said dispensed form is an aerosol.

26. (original) A pressurizing system for a pressurizable container, comprising:

    a) a pressurization station including a compressor, a needle in communication with said compressor, and an upstanding collar surrounding said needle, said collar having a cylindrically tubular lower portion having a first inner diameter, and an upper portion with a surface beveled outward relative to said inner surface of said lower portion of said collar; and

Serial No.: 10/624,996  
Examiner: T.L. Maust  
Art Unit: 3751

b) a refillable and repressurizable container for containing a dispensable material and dispensing said material in a dispensed form, said container including a lower end having an outer diameter and provided with a fill valve adapted to be engaged by said needle, wherein when said container is positioned at said collar, said beveled inner surface guides said lower end of said container into said lower portion of said collar and into alignment with said needle.

27. (original) A pressurizing system according to claim 26, wherein:

a clearance between said lower end of said container and said collar is approximately nine times greater at said upper portion than at said lower portion.

28. (original) A pressurizing system according to claim 26, wherein:

said first diameter is 0.010 inch greater than said outer diameter of said lower end of said container.

29. (original) A pressurizing system according to claim 26, wherein:

said upper portion of said collar has a maximum inner diameter which is 0.090 inch greater than said outer diameter of said lower end of said container.

30. (original) A pressurizing system according to claim 26, wherein:

said dispensable material is a fluid, and said dispensed form is an aerosol.

Serial No.: 10/624,996  
Examiner: T.L. Maust  
Art Unit: 3751

31. (original) A pressurizing system for a container adapted to store and dispense a dispensable material, comprising:

- a) a pressurization station including a compressor, a needle in communication with said compressor; and
- b) a refillable and repressurizable container for containing the dispensable material and dispensing the material in a dispensed form, said container including a surface provided with a fill valve adapted to be engaged by said needle, said fill valve defining an interior space and two resilient separable bill portions which extend above said interior space and which are naturally in contact to closed said fill valve,

wherein when said container is fully seated on said needle but said needle is not providing a pressurizing fluid from said compressor into said fill valve, said needle extends within said interior space but does not extend between said bill portions and said fill valve is closed,

and wherein when said needle provides a pressurizing fluid into said fill valve, said bill portions of said fill valve separate to open said fill valve.

32. (original) A system according to claim 31, wherein:

said dispensable material is a fluid, and said dispensed form is an aerosol.